

Claims

- [c1] 1. An apparatus for managing characteristics of a computer, of the type having a host CPU therein, the apparatus comprising:
- a management appliance, disposed in said computer and, at least indirectly, coupled to said host CPU;
- the management appliance having a management appliance microprocessor therein which runs a management appliance microserver, capable of handling web- and IP-based content;
- the management appliance having an out-of-band connection to a network;
- the management appliance also having an internal connection to the host CPU;
- the host CPU, in combination with a web server in said computer, is configured to generate host computer monitoring web pages;
- via a host CPU to management appliance connection, the management appliance microserver monitors the host computer monitoring web pages; and,
- via the out-of-band connection, the management appliance reports, to an external network, status information contained in said host computer monitoring web pages.
- [c2] 2. An apparatus of claim 1 wherein said computer is an industrial computer and said status information relates to a status of an application program running on said industrial computer via said host CPU.
- [c3] 3. An apparatus of claim 2 wherein said host CPU to management appliance connection comprises an in-band network connection between the host CPU and an external network.
- [c4] 4. An apparatus of claim 1 wherein said management appliance includes a management appliance memory having therein a host computer monitoring web page cache for storing host computer monitoring web pages obtained from said host CPU.
- [c5] 5. An apparatus of claim 4 wherein said host computer monitoring web pages are available to an external network, via the out-of-band connection, despite any crash that may have occurred on host CPU.

- [c6] 6.A method of monitoring a remote computer comprising the steps of:
providing a remote computer, having a host CPU;
providing an administrator computer;
providing a first network connection between said remote computer and said administrator computer; and,
providing, on said remote computer, a management appliance with a microserver thereon for monitoring host computer monitoring web pages generated via said host CPU.
- [c7] 7.A method of claim 6 wherein said host computer monitoring web pages are application web pages being provided to users external to said remote industrial computer and said administrator computer.
- [c8] 8.A method of claim 7 further comprising the step of:
saving in a memory cache on said management appliance said host computer monitoring web pages.
- [c9] 9.A method of claim 8 further comprising the step of:
reporting information previously stored regarding said host computer monitoring web pages to said administrator computer via the second network connection during a time when said first network connection is inoperable due to a failure of said host CPU.
- [c10] 10.A method of claim 9 further comprising the steps of:
analyzing said information regarding said host computer monitoring web pages and making a determination relating to said failure of said host CPU; and,
restarting said host CPU via said second network connection.
- [c11] 11.A method of claim 10 wherein said remote computer is an industrial computer and further comprising the steps of making changes to software on said remote industrial computer, after restarting said host CPU, wherein said changes are effected by said determination.
- [c12] 12.An apparatus for extending operational characteristics of a monitor for an industrial PC comprising:
an industrial PC;

a second PC;

first network means for exchanging information between said industrial PC and said second PC;

second network means for exchanging information between said industrial PC and said second PC, so that said second network means is operable despite an operational failure of said first network means;

means for hosting a web page on said industrial PC; and,

means, internal to said industrial PC, for caching said web page and providing related information on said second network means.

[c13] 13. An apparatus of claim 1 wherein said management appliance has both ISA bus connections and PCI bus connections thereon and further such that the ISA bus connections are on an opposite side of said management appliance from said PCI bus connections.

[c14] 14. An apparatus of claim 5 wherein said management appliance has both ISA bus connections and PCI bus connections thereon and further such that the ISA bus connections are on an opposite side of said management appliance from said PCI bus connections.

[c15] 15. An apparatus of claim 6 wherein said management appliance has both ISA bus connections and PCI bus connections thereon and further such that the ISA bus connections are on an opposite side of said management appliance from said PCI bus connections.

[c16] 16. An apparatus of claim 11 wherein said management appliance has both ISA bus connections and PCI bus connections thereon and further such that the ISA bus connections are on an opposite side of said management appliance from said PCI bus connections.

[c17] 17. An apparatus of claim 12 wherein said means, internal to said industrial PC, for monitoring is a management appliance; and wherein said management appliance has both ISA bus connections and PCI bus connections thereon and further such that the ISA bus connections are on an opposite side of said management appliance from said PCI bus connections.

[c18] 18. An industrial computer comprising:

- a host CPU disposed in said industrial computer; said host CPU coupled to an external computer network via an in-band connection with respect to said host CPU;
- a web page server, coupled to and executed via said host CPU;
- call center application software executed by said host CPU;
- a host computer monitoring web page generated by said web page server, said host computer monitoring web page comprising status information relating to operation of said call center application software;
- a management appliance, disposed within said industrial computer and disposed on an expansion card configured to cooperate with an industry standard expansion bus disposed in said industrial computer;
- said management appliance comprising a memory and a management appliance CPU, said memory containing numerous variations of said host computer monitoring web page;
- said management appliance coupled to said external computer network via an out-of-band connection with respect to said host CPU; and
- said management appliance configured to provide, via said out-of-band connection and over said external computer network, said numerous variations of said host computer monitoring web page irrespective of a current inoperable status of said host CPU.

[c19] 19. An industrial computer of claim 18 wherein said management appliance receives said numerous variations of said host computer monitoring web page via an external connection comprising said out-of-band connection, said external computer network and said in-band connection.

[c20] 20. An industrial computer of claim 18 wherein said management appliance receives said numerous variations of said host computer monitoring web page via an internal connection which is entirely internal to said industrial computer.